

WHAT IS CLAIMED IS:

1. A device for removing residual processed material from the surface of a roller, comprising:
  - a support structure, comprising
    - a handle having a top palm contact surface, a bottom portion, and a stem portion having a pair of opposed longitudinal concave side surfaces and a pair of opposed substantially parallel latitudinal end surfaces, the surfaces of the stem portion extending from the perimeter of the top surface to the perimeter of the bottom portion,
    - a substantially wedge-shape deformable base attached to the handle bottom portion comprising opposed longitudinal wiper support surfaces and opposed end surface; and
    - hook and loop fasteners attached to the support structure.
2. The device of Claim 1, wherein the palm contact surface comprises a longitudinal raised center region.
3. The device of Claim 1, wherein the stem portion concave side surfaces comprise contact regions at least partially opposed to a portion of the top palm contact surface.
4. The device of Claim 1, wherein the base comprises high density foam.
5. The device of Claim 4, wherein the base comprises non-absorbent high density foam.
6. The device of Claim 1, wherein the opposed longitudinal wiper support surfaces intersect and form an edge at the lower portion of the base.
7. The device of Claim 1, wherein the base further comprises a flat bottom surface.
8. The device of Claim 1, wherein the base further comprises a concave bottom surface.
9. The device of Claim 1, wherein the base further comprises a convex lower surface.
10. The device of Claim 1, wherein the fasteners are attached to the support structure by heat sealing.

11. The device of Claim 1, wherein the fasteners are attached to the support structure by an adhesive.

12. The device of Claim 1, wherein the fasteners are attached to the base by heat sealing.

13. The device of Claim 12, wherein the fasteners are attached to the upper regions and lower regions of the base.

14. The device of Claim 12, further comprising a wiper comprising hook and loop fasteners complementary to the fasteners attached to the support structure, wherein the fasteners attach the wiper to the support structure and the wiper covers at least a portion of the wiper support surfaces.

15. The device of Claim 14, further comprising a mechanical holding structure having surfaces that contact and hold the handle of the support structure and configured to position the wiper in contact with the processed material.

16. The device of Claim 15, wherein the holding structure comprises a cart.

17. A method of recovering processed material from the surface of a rotating roller in a recovery system with a first cleaning device that includes a support structure with a handle having a top contact surface, a bottom portion, and a stem portion that includes a pair of opposed longitudinal concave side surfaces and a pair of opposed substantially parallel latitudinal end surfaces extending from the perimeter of the top surface to the perimeter of the handle bottom portion, a substantially wedge-shape base attached to the handle bottom portion having deformable opposed longitudinal wiper support surfaces, and fasteners attached to the base, and a first wiper having complementary fasteners and attached to the support structure by the fasteners and covering the wiper support surfaces, comprising:

placing the first wiper in contact with the processed material on the surface of a rotating roller;

allowing the first wiper to absorb an amount of the processed material;

placing the first wiper containing said absorbed processed material in a recovery system having a recovery container; and

removing absorbed processed material from the first wiper to the recovery container.

18. The method of Claim 17, further comprising placing a second wiper attached to a second cleaning device in contact with the processed material on the surface of the rotating roller wherein the first wiper and the second wiper contact the rotating roller simultaneously during at least a portion of time;

allowing the second wiper to absorb an amount of the processed material;  
placing the second wiper containing said absorbed processed material in a recovery system; and  
removing absorbed processed material from the wiper to the recovery container.

19. The method of Claim 17, wherein the cleaning device is held by a mechanical system and wherein placing the first wiper in contact with the processed material comprises using the mechanical system so that a hand of a user does not need to be in close proximity to the rotating roller.

20. The method of Claim 19, wherein placing the first wiper in contact with the processed material comprises using a movable cart to position the mechanical system.

21. A device for removing residual processed material from the surface of a roller, comprising:

a support structure, comprising:  
a handle having a top palm contact surface, a bottom portion, and a stem portion having a generally cylindrical side surface extending between the perimeter of the top palm contact surface and the perimeter of the bottom portion, and  
a deformable base attached to the handle and having a lower wiper support surface; and  
a plurality of hook and loop fasteners attached to the wiper support surface of the base.

22. The device of Claim 21, wherein the base comprises high density non-absorbent high density foam.

23. The device of Claim 21, wherein the fasteners are attached to the base by heat sealing.

24. The device of Claim 21, wherein the fasteners are attached to the base by an adhesive.

25. The device of Claim 21, further comprising a disc-shaped wiper that substantially covers the wiper support surface of the base and includes complementary hook and loop fasteners that attach to the corresponding fasteners attached to the wiper support surface.

26. The device of Claim 25, wherein the wiper comprises a contacting material and a backing material.

27. The device of Claim 26, wherein the contacting material comprises polyester and wherein the backing material comprises foam.

28. The device of Claim 26, wherein the backing material comprises UltraSORB®.

29. The device of Claim 25, wherein the wiper comprises an abrasive material.

30. The device of Claim 29, wherein the abrasive comprises polycarbonate.

31. A recovery system for removing and holding processed material from a cleaning device having a wedge-shaped base with opposed longitudinal wiper support surfaces and an attached removable wiper that covers at least a portion of the wiper support surfaces, comprising:

- a recovery container for receiving and holding the recovered processed material;

- a dasher disposed inside the recovery container; and

- a rack disposed on the top surface of the dasher comprising a pair of opposed longitudinal planar surfaces arranged in a wedge-shaped configuration such that the surfaces of the rack substantially contact the wiper of the cleaning device inserted into the rack, and wherein the surfaces of the rack have a plurality of openings that allow fluid from the wiper to pass through the openings and onto the top surface of the dasher.

32. The recovery system of Claim 31, wherein the dasher is configured to depress into the recovery container such that the wiper of a cleaning device inserted in the rack can contact a solvent contained in the recovery container.

33. A method of removing residual processed material from the surface of a rotating roller on a three roll mill with a cleaning device that includes a support structure having a handle and a wedge-shape deformable base having opposed longitudinal wiper support surfaces attached to the handle, a wiper removably attached to the wiper support

structure and substantially covering the wiper support surfaces, wherein the wiper is removably attached to the support structure with a fastener, comprising:

placing the wiper in contact with the processed material on the surface of a rotating roller, and

allowing the wiper to absorb an amount of the processed material.

34. The method of Claim 33, further comprising removing the absorbed processed material from the wiper.

35. The method of Claim 34, further comprising repeating the placing, allowing, and removing steps until the desired amount of material is absorbed from the rotating roller.

36. The method of Claim 33, wherein placing comprises placing the wiper past a pinch point of the three roll mill.

37. The method of Claim 33, wherein placing comprises placing the wiper in a position that allows it to contact residual processed material on both a center roll and a feed roll of the three roll mill.

38. The method of Claim 33, wherein placing comprises placing the wiper in a position that allows it to contact residual processed material on both an apron roll and a center roll of the three roll mill.

39. A wiper, configured to be coupled with a surface cleaning device that includes a handle having a top palm contact surface, a bottom portion, and a stem portion with a pair of opposed longitudinal concave side surfaces and a pair of opposed substantially parallel latitudinal end surfaces, the surfaces of the stem portion extending from the perimeter of the top surface to the perimeter of the bottom portion, and a substantially wedge-shape deformable base having opposed longitudinal wiper support surfaces and opposed end surfaces attached to the handle bottom portion, and attached hook and loop fasteners, comprising:

material sized to substantially cover a wiper support surface of the cleaning device;  
and

a plurality of hook and loop fasteners complementary to the fasteners of the cleaning device and correspondingly positioned to mate with the fasteners of the cleaning device to hold the wiper onto the cleaning device.

40. The device of Claim 39, wherein the material comprises contacting material and a backing material.

41. The device of Claim 40, wherein the contacting material comprises polyester and wherein the backing material comprises foam.

42. The device of Claim 40, wherein the contacting material comprises an abrasive material and the backing material comprises a deformable material.

43. The device of Claim 39, wherein the material comprises foam.

44. The device of Claim 39, wherein the material comprises UltraSORB®.

45. The device of Claim 42, where the deformable material is foam.

46. The device of Claim 39, wherein the wiper comprises an abrasive.

47. The device of Claim 46, wherein the abrasive comprises polycarbonate.

48. The device of Claim 39, wherein the wiper comprises cloth.